

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An in-plane switching mode liquid crystal display device, comprising:
 - a plurality of pixels each including R (Red), G (Green), B (Blue) and W (White) subpixels defined by a plurality of gate lines and a plurality of data lines;
 - a driving element in each subpixel; and
 - at least one pair of electrodes disposed in each subpixel to form a horizontal electric field, wherein the R, G, B, and W subpixels of each pixel are arranged in a zigzag pattern in a data line direction, and wherein the arrangement each of R, G, B, and W subpixels of a pixel is arranged to be symmetric with respect to the gate line to the arrangement of R, G, B, and W subpixels of the same color of an adjacent pixel of the plurality of pixels, and
 - wherein each W subpixel of adjacent pixels of the plurality of pixels is not adjacent to another W subpixel.
2. (Original) The device of claim 1, wherein the data line has at least one bent portion.
3. (Original) The device of claim 1, wherein the electrodes include:
 - a common electrode; and
 - a pixel electrode arranged to be substantially parallel with the common electrode.
4. (Original) The device of claim 3, wherein the common electrode and the pixel electrode have at least one bent portion.
5. (Previously Presented) The device of claim 1, further comprising:
 - a common line connected with a common electrode; and
 - a pixel electrode line connected with a pixel electrode in each subpixel, the pixel electrode line overlapping a portion of the common line to form a storage capacitor.
6. (Original) The device of claim 1, wherein the driving element is a thin film transistor.

7. (Original) The device of claim 1, wherein the R, G, B, and W pixels are substantially parallelograms.

8. (Currently Amended) An in-plane switching mode liquid crystal display device, comprising:

a plurality of pixels defined by a plurality of gate lines and a plurality of data lines, each pixel including R (Red), G (Green), B (Blue), and W(White) subpixels;

a driving element disposed in each subpixel; and

at least one pair of electrodes disposed in each subpixel to form a horizontal electric field,

wherein the R, G, B, and W subpixels of each pixel are arranged in a zigzag pattern in a data line direction, the subpixels having the same color of adjacent pixels being arranged in a different direction to compensate a main viewing angle of each of R, G, B, W subpixels,

and the W subpixels being non-linearly arranged along the data line.

9. (Previously Presented) The device of claim 8, wherein direction of the electrodes in each of R, G, B, and W subpixels of a pixel is symmetric with respect to the gate line to that of the electrodes in R, G, B, and W subpixels having the same color in an adjacent pixel.

10. (Canceled)

11. (Previously Presented) An in-plane switching mode liquid crystal display device, comprising:

a first set of pixels of different colors, each of the pixels having a data line along a side thereof and a gate line along a side thereof, wherein one of the pixels is a white (W) pixel, each pixel of the first set of pixels having at least one pair of first electrodes for providing a horizontal electric field therebetween; and

a second set of pixels of different colors, each of the pixels having a data line along a side thereof and a gate line along a side thereof, wherein one of the pixels is a white (W) pixel, each pixel of the second set of pixels having at least one pair of first electrodes for providing a horizontal electric field therebetween;

wherein the first set of pixels and the second set of pixels are adjacent to each other and

wherein the white pixel of the first set and the white pixel of the second set are not adjacent to each other, and

wherein the first set of four pixels and the second set of four pixels are each arranged in a two by two matrix and wherein the pair of electrodes of pixels in the first set are in a direction from and symmetric about a line perpendicular to the gate line from the pair of electrodes of pixels of the same color in the second set.

12. (Previously Presented) The in-plane switching mode liquid crystal display device of claim 11, wherein the first set of pixels includes four pixels and the second set of pixels includes four pixels.

13. (Canceled)

14. (Canceled)

15. (Previously Presented) The in-plane switching mode liquid crystal display device of claim 11, wherein the first set of pixels and the second set of pixels are each arranged in a row.

16. (Original) The in-plane switching mode liquid crystal display device of claim 12, wherein the first set of four pixels and the second set of four pixels are each arranged in a row.

17. (Original) The in-plane switching mode liquid crystal display device of claim 16, wherein the white pixel of the first set and the white pixel of the second set are not adjacent to each other.

18. (Canceled)

19. (Previously Presented) The in-plane switching liquid crystal display device of claim 11, wherein the data lines of the first set and the data lines of the second set have a bent portion.

20. (Original) The in-plane switching liquid crystal display device of claim 19, wherein the bent portion of the data lines of the first set and the bent portion of the data lines of the second set are symmetric with respect to an axis perpendicular to the gate line.

21. (Previously Presented) An in-plane switching liquid crystal display device, comprising:

a first set of pixels of different colors, each of the pixels having a data line along a side thereof and a gate line along a side thereof, wherein one of the pixels is a white (W) pixel; and

a second set of pixels of different colors, each of the pixels having a data line along a side thereof and a gate line along a side thereof, wherein one of the pixels is a white (W) pixel;

wherein the first set of pixels and the second set of pixels are adjacent to each other;

wherein the data lines of the first set and the data lines of the second set have a bent portion;

wherein the bent portion of the data lines of the first set and the bent portion of the data lines of the second set are symmetric with respect to an axis perpendicular to the gate line; and

wherein a dead space is formed between the first set and the second set.

22. (Original) The in-plane switching liquid crystal display device of claim 19, wherein the bent portion of the data lines of the first set and the bent portion of the data lines of the second set are the same direction.

23. (Previously Presented) The in-plane switching liquid crystal display device of claim 11, wherein the different colors include red, green, blue and white.

24. (Original) The in-plane switching liquid crystal display device of claim 23, wherein the first set of pixels includes four pixels and wherein the second set of pixels includes four pixels, and wherein the first set of four pixels and the second set of four pixels are each arranged in a two by two matrix.

25. (Original) The in-plane switching liquid crystal display device of claim 24, wherein the two by two matrices of the first set and the second set include an upper row and a

lower row, respectively, and wherein the two colors in the upper row of the first set are the same as the two colors in the lower row of the second set.

26. (Original) The in-plane switching liquid crystal display device of claim 25, wherein the two colors in the upper row of the first set are arranged the same as the two colors in the lower row of the second set.

27. (Original) The in-plane switching liquid crystal display device of claim 13, wherein the two by two matrices of the first set and the second set include an upper row and a lower row, respectively, and wherein the two colors in the lower row of the first set are the same as the two colors in the upper row of the second set.

28. (Original) The in-plane switching liquid crystal display device of claim 27, wherein the two colors in the lower row of the first set are arranged in the same pattern as the two colors in the upper row of the second set.

29. (Previously Presented) An in-plane switching mode liquid crystal display device, comprising:

- a first set of pixels of different colors, each of the pixels having a data line along a side thereof and a gate line along a side thereof, wherein one of the pixels is a white (W) pixel;

- a second set of pixels of different colors, each of the pixels having a data line along a side thereof and a gate line along a side thereof, wherein one of the pixels is a white (W) pixel;

- a third set of pixels of different colors, each of the pixels having a data line along a side thereof and a gate line along a side thereof, wherein one of the pixels is a white (W) pixel; and

- a fourth set of pixels of different colors, each of the pixels having a data line along a side thereof and a gate line along a side thereof, wherein one of the pixels is a white (W) pixel;

wherein the first set of pixels and the second set of pixels are adjacent to each other and the third set of pixels and the fourth set of pixels are adjacent to each other and wherein the white pixels are not adjacent to each other, and wherein the white pixels of each of the first to fourth sets of pixel are not in a line, and

wherein the first set of pixels includes four pixels, the second set of pixels includes four pixels, the third set of pixels includes four pixels, and the fourth set of pixels includes four pixels

and wherein the first to fourth sets of four pixels are each arranged in a two by two matrix and wherein each pixel contains a pair of electrodes to form a horizontal electric field and wherein the wherein the pair of electrodes of pixels in the first set are in a direction different from and symmetric about a line perpendicular to the gate line from the pair of electrodes of pixels of the same color in the second set.

30. (Canceled)

31. (Original) The in-plane switching liquid crystal display device of claim 30, wherein the two by two matrices of the first set and the second set include an upper row and a lower row, respectively, and wherein the two colors in the upper row of the first set are the same as the two colors in the lower row of the second set.

32. (Original) The in-plane switching liquid crystal display device of claim 31, wherein the two colors in the upper row of the first set are arranged the same as the two colors in the lower row of the second set.

33. (Original) The in-plane switching liquid crystal display device of claim 30, wherein the two by two matrices of the first set and the second set include an upper row and a lower row, respectively, and wherein the two colors in the lower row of the first set are the same as the two colors in the upper row of the second set.

34. (Original) The in-plane switching liquid crystal display device of claim 33, wherein the two colors in the lower row of the first set are arranged the same as the two colors in the upper row of the second set.

35. (Original) The in-plane switching liquid crystal display device of claim 30, wherein the two by two matrices of the first set and the third set include an upper row and a lower row, respectively, and wherein the two colors in the upper row of the first set are the same as the two colors in the upper row of the third set.

36. (Original) The in-plane switching liquid crystal display device of claim 35, wherein the two colors in the upper row of the first set are arranged to be opposite the arrangement of the two colors in the upper row of the third set.

37. (Original) The in-plane switching liquid crystal display device of claim 30, wherein the two by two matrices of the first set and the third set include an upper row and a lower row, respectively, and wherein the two colors in the lower row of the first set are the same as the two colors in the lower row of the third set.

38. (Original) The in-plane switching liquid crystal display device of claim 37, wherein the two colors in the lower row of the first set are arranged to be opposite the arrangement of the two colors in the lower row of the third set.

39. (Original) The in-plane switching liquid crystal display device of claim 30, wherein the two by two matrices of the second set and the fourth set include an upper row and a lower row, respectively, and wherein the two colors in the upper row of the second set are the same as the two colors in the upper row of the fourth set.

40. (Original) The in-plane switching liquid crystal display device of claim 39, wherein the two colors in the upper row of the second set are arranged to be opposite the arrangement of the two colors in the upper row of the fourth set.

41. (Original) The in-plane switching liquid crystal display device of claim 30, wherein the two by two matrices of the second set and the fourth set include an upper row and a lower row, respectively, and wherein the two colors in the lower row of the second set are the same as the two colors in the lower row of the fourth set.

42. (Original) The in-plane switching liquid crystal display device of claim 41, wherein the two colors in the lower row of the second set are arranged to be opposite the arrangement of the two colors in the lower row of the fourth set.

43. (Canceled)